PHIL 2305 INTRODUCTION TO LOGIC (3 credit hours)

Elmira College

SPRING 2025

Required Text:

1. Patrick J. Hurley, (2000). ***A Concise Introduction to Logic***. Wadsworth Publishing;
2. Carl Cohen, Irving M Copi, Kenneth McMahon, ***Introduction to Logic***(2013). Pearson.

Supplemental readings will be included to illustrate or expand on textbook readings.

Pre-requisites: PHIL 1201 Introduction to Critical Thinking

Course Description

This course provides an introduction to the principles of logic, including symbolic logic, truth tables, and predicate logic. Students will learn how to analyze and evaluate arguments using logical principles and tools. By the end of the course, students should have a solid foundation in the principles of logic and reasoning and be able to apply these principles to everyday life and philosophical discourse. Additionally, they should learn how to translate natural language sentences into symbolic notation, construct truth tables and proofs, and evaluate arguments for validity and soundness.

Course Objectives and Goals

- Understanding the basic principles of logic and reasoning, including propositional logic, truth tables, and predicate logic.
- Developing the ability to analyze and evaluate arguments using logical tools, including natural deduction and quantifiers.
- Be able to translate natural language sentences into symbolic notation and evaluate arguments for validity and soundness.
- Understanding the role of logic in philosophical inquiry and everyday life.

Evaluation of Performance

Your grade will be based upon your performance on exams, assignments, and participation.

Class Participation	10%
4 Assignments	20%
2 Quizzes	20%
Midterm Exam	25%
Final Exam	25%
Total	100%

Grades will be assigned as follows:

A	93% and above	B-	80 - 82%	D+	67 - 69%
A-	90 - 92%	C+	77 - 79%	D	63 - 66%
B+	87 - 89%	C	73 - 76%	D-	60 - 62%
B	83 - 86%	C-	70 - 72%	F	59% or below

Withdrawal Policy: Please see Elmira College Bulletin for information on this policy.

Academic Honesty: Please read the section on Academic Honesty in the **Code of Conduct**. Briefly, academic dishonesty includes: cheating, fabrication, facilitating academic dishonesty, and plagiarism. Ask if you have any questions on whether something constitutes as academic dishonesty. All work must be original and new. Past assignments from current or other courses will not be accepted. Academic dishonesty will not be tolerated. It will result in zero on the assignment, and a report will be filed with the school. Continued practice will result in failure of the class. Institutional penalties may also apply with repeated acts of academic honesty.

Student Responsibility:

- It is your responsibility to keep track of assignments and due dates.
- You should ask questions concerning assignments and lectures, if you need any clarifications.
- If you are struggling in class, have concerns, and/or unsure about expectations, please stop by during office hours or make an appointment for another time.

Tentative Schedule of Topics

Topic	Materials	Tasks & Evaluations
Basic Concepts of Logic	Chapter 1	
Language: Meaning and Definition; Semantic concepts	Chapter 2	Assignment 1
Logical Connectives: Propositional variables and logical connectives	Chapter 3	
Informal Fallacies; Formal Logic	Chapter 4	Quiz 1
Categorical Propositions; Categorical Syllogisms	Chapter 5	
Truth Tables	Chapter 6	
Validity and Soundness	Chapter 7	
Propositional Logic	Chapter 8	Assignment 2
Rules of Implication and Replacement	Chapter 9	
Predicate Logic	Chapter 10	Midterm Exam
Analog and Legal and Moral Reasoning	Chapter 11	
Logical Equivalence	Chapter 12	
Quantifiers and Statements; Universal and Existential Quantification	Chapter 13	Assignment 3
Sentence Logic	Chapter 14	
Logical Forms and Argument Forms	Chapter 15	
Deductive Reasoning; Natural Deduction Systems	Chapter 16	Assignment 4
Principles of Probability; The Probability Calculus	Chapter 17	
Statistical Reasoning; Scientific Reasoning	Chapter 18	Quiz 2

Science and Superstition	Chapter 19	Final Exam